

ECE 2030
 Homework 3
 Due 1/29/04

1. Use a K-map to find a simplification of the following expressions:

a) $F(A,B,C) = \Sigma m(2,3,4,5)$

b) $F(A,B,C) = \Sigma m(0,2,4,6)$

2 Complete the following.

a)

CD \ AB	00	01	11	10		
00			1	1		
01	1	1	1		_____	
11		1			_____	
10					_____	

b)

CD \ AB	00	01	11	10		
00	1		1	1		
01			1	1	_____	
11	1			1	_____	
10	1			1	_____	

3. $F(A,B,C,D) = \Sigma m(0,1,2,4,5,6,9,11,14)$

a) Find a simplified SOP expression.

b) Design a gate level circuit using mixed logic.

4. Convert the following numbers from binary to decimal
 0110, 1110, 101011

5. Convert the following numbers from decimal to binary.
 5. 81, 110, 139